

CLAIMS

1. A method of retrieving data having a format enabling the user to take further action on said retrieved data, the method enabling a user to search for information relevant to the user taking said further action, the method comprising:
 - generating a search request for the information at a user terminal;
 - modifying the search request to indicate at least one user preference;
 - forwarding the search request cover a communications system to a server adapted to retrieve data using a distributed computer system, the server adapted to provide a search result to a user terminal selected in accordance with a predetermined user preference dependent on the extent to which the search result conforms with the search request, whereby the user is able to perform said action on said retrieved data, wherein said retrieved data comprises an item conforming to the search criteria, and the action performed by the user comprises the purchase of the searched item at a cost informed by the data retrieved by the search result.
2. A method as claimed in claim 1, wherein a user preference includes financial information personal to the user and at least one criteria which a search result must conform which initiates the automatic purchase of the item prior to the user being informed of the search result.
3. A method as claimed in claim 1 or claim 2, in which the search result is provided in a medium and format selected by the user for a user terminal to which the search result is to be forwarded.
4. A method as claimed in claim 3, wherein the user terminal is selected according to the extent to which the search result conforms with the search request.
5. A method of searching for data to be retrieved from a distributed computer system, the data including an item and associated cost information, the distributed computer system comprising at least one user terminal capable of communicating with a proxy server, the proxy server being capable of communicating with at least one other server capable of retrieving information from the distributed computer system, the user terminal being adapted to be operable by a user who is registered with the

proxy server with an identifier for the user, the identifier being associated with one or more static or dynamic addresses, the user identifier being further associated with a set of user preferences, the method comprising the steps of:

generating a search request at one of said at least one user terminals, the search request indicating at least one search criterion to be met by the data to be retrieved;

sending a search request message encapsulating the search request to the proxy server;

modifying the search request to incorporate the user preferences and to associate the search request message with the identifier of the user;

forwarding the modified search request message and the identifier to at least one search server arranged to process the received search request message;

performing a search according to the encapsulated search request;

sending a search result containing some information dependent on the identifier for the user encapsulated in a search result message to the proxy server;

de-encapsulating the search result message;

processing the search result according to the set of user preferences;

selecting one of said at least one user terminals according to the set of user preferences; and

sending an search result message encapsulating the processed search result to said at least one selected user terminal.

6. A method as claimed in claim 5, further including the step of the proxy server purchasing the item at the cost indicated by the search result and modifying the search result to indicate the item has been already purchased, if at least one predetermined user preference indicates personal financial information of the user which enables the purchase transaction to be completed by the proxy server, the proxy server being configured to automatically purchase an item at a designated cost if at least one user preference indicates that an automatic purchase can occur if the search result meets at least one predetermined search criterion.

7. A method as claimed in any previous claim, wherein the distributed computer system supports the session initiation protocol (SIP), and wherein the user terminal is a SIP registered terminal, the proxy server is a SIP proxy server, and the user is registered at the proxy server with a unique SIP address.

8. A method as claimed in claim 7, wherein the search result message is a SIP message which is sent to the user at an address determined by the SIP proxy server to be the current location of the user who requested the search.

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9. A method as claimed in claim 8, wherein the identifier comprises the user's registered SIP identity and the search result SIP message is sent to a plurality of addresses associated with the user's registered SIP identity.

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10. A method as claimed in claim 7 or claim 8, wherein the search result SIP message is sent to an address associated with a different user terminal than the user terminal operated by the user to send the search request to the SIP proxy server.

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11. A method as claimed in any preceding claim, wherein the user terminal is a mobile device.

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12. A method as claimed in any preceding claim, wherein the set of user preferences comprises a formatting user preference which indicates how the search result should be formatted.

13. A method as claimed in any one of claims 1 to 12, wherein the set of user preferences comprises a plurality of formatting user preferences, each formatting user preference being associated with a type of user terminal.

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14. A method as claimed in any previous claim, wherein the method further comprises the step of the proxy server modifying the set of at least one search criterion according to said set of user preferences.

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15. A method as claimed in any previous claim, wherein at least one user preference indicates a scheme to which the user has subscribed which may modify the cost of an item returned by the search.

16. A method as claimed in any previous claim, wherein the method further comprises the step of the proxy server modifying the search result according to a set of user

preferences.

17. A method as claimed in claim 16, wherein the proxy server software modifies the search result by modifying the cost of an item returned according to a pricing scheme to which the user has subscribed.

18. A method as claimed in claim 16, wherein the proxy server software modifies the search result by modifying the cost of an item returned according to a pricing scheme provided by the proxy server software.

19. A method as claimed in any previous claim, wherein the search request encapsulates additional information enabling a personalised search result to be generated.

20. A method as claimed in any previous claim, wherein the at least one search server to which said search request message is forwarded to by the proxy server is determined by the proxy server in accordance with said set of at least one user preferences.

21. A method as claimed in any previous claim, wherein the proxy server modifies the search result received to identify an address to which the search request can be forwarded to in the form of an electronic email.

22. A method as claimed in any previous claim, wherein the proxy server processes the returned search result to remove at least one result which is indicated by at least one user preference as not relevant to the user's listed interests.

23. A method as claimed in any previous claim, wherein the proxy server processes the returned search result to modify any returned cost value for an item indicated by the search according to a discount scheme to which the identity of the user is associated.

24. A method as claimed in any previous claim, wherein the proxy server processes the search result to prioritise the delivery of at least one item listed by the search result

to the user in accordance with the extent to which said at least one item conforms with the set of at least one search criterion.

- 5 25. A method as claimed in claim 24, wherein the proxy server alerts the user to a search result by encapsulating the search result in a small message service SMS message which is sent to the user over a communications network.
- 10 26. A method as claimed in any previous claim, wherein the search request is generated by the user terminal modifying a previously stored search request in accordance with an updated set of at least one search criterion.
- 15 27. A method as claimed in any previous claim, wherein the set of at least one user preferences specifies a maximum time limit for the search results to be generated.
- 20 28. A method as claimed in any previous claim, wherein the distributed computer system is connected over a communications network.
- 25 29. A method as claimed in any previous claim, wherein the session during which software provided on the user terminal interfaces with software provided on the proxy server to send the proxy server the search request message is terminated when the proxy server sends the search result message to the user.
- 30 30. A user terminal arranged to be operable by a user for use in generating a search request according to the method of any of the previous claims.
- 35 31. A proxy server arranged to receive a search request message from a user terminal as claimed in claim 30, the proxy server being arranged to be used in a method according to any of claims 1 to 29.
- 40 32. A suite of computer programs arranged to implement a method according to any one of claims 1 to 29, the suite of computers being provided on the distributed computer system.
- 45 33. A signal carrying a search request generated by a method according to any one of

claims 1 to 29 over a communications network comprising the distributed computer system.

5 34. A signal carrying a search result generated by a method according to any one of claims 1 to 29 over a communications network comprising the distributed computer system.

35. A communications network arranged to communicate a signal according to either claim 33 or claim 34.

10 36. A method of providing an item at a discounted cost to a user over a communication network comprising a distributed computer system, the method comprising performing a search for the item and associated cost information according to any one of claims 1 to 6, wherein the proxy server automatically provides the server
15 software at a site indicated in the search result as able to provide the item requested by the search request with information derived from the user's preferences, the information including:

sufficient financial information to enable the user to purchase the item;

sufficient address information to enable the item to be sent to an address

20 designated by the user.

37. A method as claimed in claim 36, wherein the items to be purchased are sent to a postal address.

25 38. A discount purchase scheme in which a user is provided with an item using a method as claimed in claim 36, the method further comprising discounting the cost of the item returned by the search by a predetermined amount in accordance with a discount rule determined by the proxy server.

30 39. A discount scheme as claimed by claim 38, wherein when an item is purchased a user preference is updated to reflect a predetermined number of points which can be indicated by the user in at least one future search request for an item and associated cost information.

40. A discount scheme as claimed by claim 39, wherein the points indicated by the user preference generate a discount in the cost of an item indicated by a search result which at least partially conforms with the future search request.

5 41. A method enabling a user to search for information on the cost of an item on a distributed computer system, the distributed computer system including an end terminal of the user, a proxy server, and at least one information source, the method comprising:

generating a search request for the item at the user terminal;

10 modifying the search request to indicate at least one user preference;

forwarding the search request from the proxy server, the proxy server being adapted to retrieve data from one or more of said data sources, the proxy server being adapted to process a search result received from a data source and provide additional information to further interrogate a data source identified by said search result to receive a second search result, the proxy server being adapted to provide the second search result to a user terminal selected in accordance with a predetermined user preference dependent on the extent to which the search result conforms with the search request, whereby the user is able to purchase the item at the cost informed by the search result.

20 42. A method as claimed in any one of claims 1 to 29 or claim 41, wherein the SIP search software optimises the purchase of complex items requested by prompting the user for additional parameters which relate to the purchase.

25 43. A method as claimed in any one of claims 1 to 29, 41 or 42, wherein a user enters a search request and the SIP server modifies the terms in the search request to optimise the purchase price of an item.

30 44. A method as claimed in claim 43, wherein the SIP server provides a notification of the results to a user end terminal and the user increases the bandwidth available to receive a search result following said notification.

45. A method of searching for data to be retrieved from a distributed information system, the method comprising:

generating a search request at a user end terminal comprising at least one search criterion and an identifier for the entity generating the search request at the user end terminal;

modifying the search request at a user end terminal to indicate at least one user preference;

forwarding the search request to a proxy server arranged to forward the search request to at least one proxy data source, wherein the information provided by the proxy server enables each proxy data source to retrieve data from one or more other data sources within a distributed information system, whereby information retrieved from the distributed information system is collated at the proxy server and processed to determine that it conforms with one or more predetermined user preferences.

46. A method as claimed in claim 45, wherein having processed the data collated at the proxy server, the proxy server forwards the search results to a user terminal selected in accordance with said user preferences.

47. A method as claimed in claim 46, wherein the proxy server formats the search results in the response provided to the user such that the user is able to take further action on the search results.

48. A method as claimed in claim 47, wherein the proxy server formats the further action comprises the purchase of a searched item retrieved by the search results.

49. A method as claimed in claim 44 to 48, wherein the search results returned by the data source include information specific to the entity generating the search request.

50. A method as claimed in claim 44 to 48, wherein the search results returned by the data source include information specific to an entity to whom the at least one search criterion relate.

51. A method as claimed in any one of claims 44 to 50, wherein one of said user preferences includes a criterion defining the extent to which a search result must conform to the search request before a search result can be communicated to a user end terminal.

52. A method as claimed in any one of claims 44 to 51, further comprising the step of
a data source requesting additional information from the proxy server which is
enables the data source to provide additional information specific to an entity to
5 which the search criteria relate.
53. A method as claimed in any one of claims 44 to 52, in which the additional
information is provided by the SIP server.
- 10 54. A method as claimed in claim 53, in which the SIP server is authorised to retrieve
the additional information from a data source by the user.
55. A method a claimed in claim 54, in which the additional information is provided to
the requesting data source without the user being aware of the content of the
15 additional information provided.
56. A method as claimed in any one of claims 44 to 55, in which additional
information is provided only if the data source requesting it conforms with
predetermined security criteria for receiving the additional information requested.
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